Installation Guide

DAS-T0804/8-SIG Tango Audio Controllers

Overview

The Tango Series of Audio Controllers allow centralized control of common audio equipment for up to 4 or 8 independently controlled audio zones per Controller. Each Tango Controller is capable of controlling the source via Metreau Keypad, RS-232, IP address (via the optional Ethernet Module), SWT Speakers (equipped with IR receivers), or the MIO R-1 AUDIO IR remote control. Other sources such as Satellite Receivers, CD Players, MP3 Players, and any other IR Controlled audio source can be patched into the RCA source inputs on the rear panel (FIG. 1).

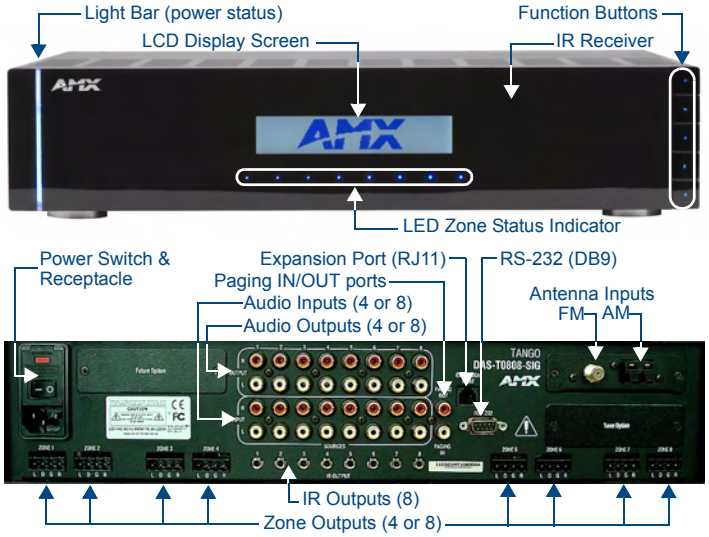


FIG. 1 Tango Audio Controllers

Tango Series Audio Controllers are available in two variations:

- **DAS-T0804-SIG** (FG1103-01) - Tango 8-Source, 4-Zone Audio Controller. The DAS-T0804-SIG can control 8 sources and distributes audio to 4 rooms/zones.
- **DAS-T0808-SIG** (FG1103-02) - Tango 8-Source, 8-Zone Audio Controller. The DAS-T0808-SIG can control 8 sources and distributes audio to 8 rooms/zones.

Both Tango Controllers are expandable to 64 zones via Tango Zone Expanders.

Product Specifications

The following table provides technical specifications for the Tango Audio Controllers. Unless otherwise noted, these specifications apply to both the DAS-T0804-SIG and DAS-T0808-SIG models.

Tango Audio Controllers - Product Specifications	
Power:	960W max (Actual average usage = 300W)
Zone Support:	DAS-T0804-SIG - 4 independent audio zones. DAS-T0808-SIG - 8 independent audio zones. • Each zone is protected thermally. • Zone grouping. • Independent Volume, Bass, Treble, Balance and SRS® controls in each zone.
Stereo Amplifiers:	• 40 Watts/CH stereo amplifiers (20Hz to 20Khz @ .1% THD). • Stereo Output:20Hz to 20Khz @ .1% THD • Protected from overload and thermal runaway.
SRS/WOW®:	Standard SRS/WOW® audio enhancement technology by SRS Labs, on all zones. ***Note**: SRS/WOW is a registered trademark of SRS labs, Inc.*
Front Panel Components:	
Light Bar	Blue light bar indicates power status.
LEDs	Blue LEDs indicate zone status.
Function/Navigation Buttons	5 pushbuttons allow for front panel programming, selection of sources, tuning AM/FM radio stations, or Sirius satellite radio stations (when equipped with the optional Sirius and/or AM/FM Tuner Card).
IR Receiver	This is where you must aim the remotes from your audio source components so the Controller can learn and emulate those commands.

Tango Audio Controllers - Product Specifications (Cont.)	
LCD Display	Displays information necessary during the programming steps and afterward is the display to indicate information about the source input activity.
Rear Panel Components:	
Power Switch & Receptacle	The master power switch will remain in the ON position normally.
Paging In/Out Ports	RCA jacks to connect to Paging devices (any audio signal/source can be used as a paging device). The Paging device connects to the Controller via the "Paging In" connector. The “Paging Out” connector is used to carry the page to Zone Expander(s).
RS-232 Port	DB9 connector allows the Tango Audio Controller to receive Controller Command Messages and provide status messages.
AM/FM Antenna Inputs	Connections for the AM and FM Antennas *(indoor installation only)*
Audio Inputs	Stereo Inputs, 47K impedance, buffered.
Audio Outputs	Stereo Looping Outputs, buffered.
IR Outputs	• Eight IR 3.5mm mono output jacks.
Zone Outputs	• DAS-T0804-SIG: 4 zone output connectors (connect to Metreau keypads) • DAS-T0808-SIG: 8 zone output connectors (connect to Metreau keypads)
Expansion Port	RJ-11 Port connects main Controller with Tango Zone Expanders.
Dimensions (HWD): *(including feet)*	• 4" x 17" x 13.5" • 10.16 cm x 43.18 cm x 34.29 cm • 2 RU
Weight:	Max. weight with 8 zones - 31 lbs (14.06 kg)
Included Accessories:	• IR01 IR BLASTER MODULE (FG-IR01) • FM antennea (indoor) • Power Cord
Other AMX Equipment:	• Rack-Mount Installation Kit (FG1101-60)

Rack-Mounting

Tango units occupy two rack spaces in a standard 19" equipment rack. Rack mounting brackets are supplied with the optional Rack-Mount Installation Kit (FG1101-60).

***Note**: Exercise extreme care when lifting or moving Tango units within the rack to avoid injury. It is recommended that you seek the assistance of another person when rack mounting Tango units.*

1. Attach the rack mounting brackets to each side of the Tango unit using the four screws (10-32 Panhead Phillips - supplied with the Tango unit) for each bracket.
   ***Note**: To prevent injury the Tango unit must be securely attached to the rack in accordance with the installation instructions. ALWAYS use the special rack mount brackets supplied and high quality fixing screws to ensure the Tango unit is installed in the rack correctly.*
2. Place the Tango unit in the equipment rack and hold steady.
3. Secure the Tango unit in the rack using the mounting holes.
   ***Note**: DO NOT stand other units directly on top of the Tango unit when it is rack mounted, as this will place excessive strain on the mounting brackets.*

Ventilation

To ensure that the rack enclosure is adequately ventilated, there must be a minimum of 3" all around the Tango unit.

Sufficient airflow must be achieved (by convection or forced-air cooling) to satisfy the ventilation requirements of all the items of equipment installed within the rack.

Speaker Wire Technology (SWT)

Speaker Wire Technology (SWT) allows both data and audio signals to travel over the same four conductor wire. This remarkable technology removes the need for control wire since the control and audio signals are shared on the same wire. The reliability and simplicity of this system has been proven for years. AMX Distributed Audio is the only company that offers a “retrofit solution”, one which allows the replacement of volume controls with AMX Distributed Audio keypads and Controllers, giving full control over the sources. Additionally, the versatility of SWT also allows AMX Distributed Audio products to be connected where the control wire has been run separately from the speaker cable.

Cabling Instructions

***CAUTION**: Be sure to check for any wiring restrictions required by the electrical code in your area.*

This installation uses low voltage cabling similar to telephone and alarm wiring, and as such does not commonly have very many restrictions on their installation. However rules may vary in different regions.

Cable Type

The Tango Controller is cabled using standard 4-conductor speaker cable originating at the Tango Controller, passing through the Keypad, and terminating at the speaker location. AMX recommends using a bundled 4 conductor 16 gauge stranded copper wire in a single continuous run.

Connecting Sources (Audio Inputs/Outputs)

Up to 8 audio devices can be connected to the Tango Controllers via the Sources INPUT and OUTPUT RCA connectors on the rear panel (see FIG. 1 on page 1). Industry standard RCA connectors provide line-level input and output connections for devices such as CD, DSS, MP3 players etc.

Each audio input has a corresponding buffered output used to connect the audio sources to additional Tango Controllers or to other devices that share the audio sources (FIG. 2).

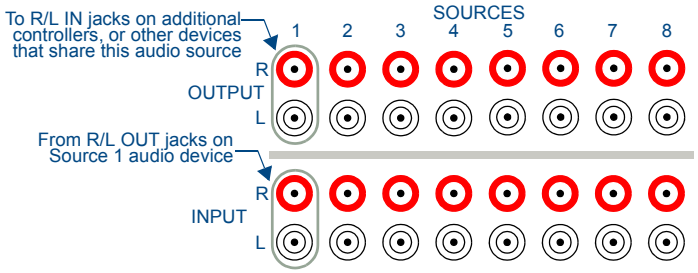


FIG. 2 Connecting Sources (Audio IN/OUT)

Connecting IR Emitters

Tango Controllers provide eight 3.5mm mono output jacks for CC-NIRC NetLinx IR Emitter Cables (supplied). Commands received by the Tango Controller from the Metreau keypads are processed and sent via the IR Emitter Cable to the controlled device.

CC-NIRC NetLinx IR Emitter Cables attach to the controlled audio device's remote control (IR) sensor with double sided tape (included), and connect to the Tango Controller via the IR OUTPUT jacks on the rear panel (FIG. 3).

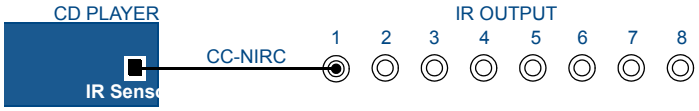


FIG. 3 Connecting IR Output to an IR Sensor on a controlled audio device

***Note**: Tango controllers support RC5 IR codes. Codes that fall outside of this range may not function with the Controller.*

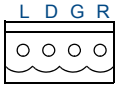
Connecting Zone Outputs

Tango Controllers can be accessed by SWT Metreau keypads (DAS-MET6SRC and DAS-MET-NUM) to provide basic transport control, source selection and volume up and down, as well as enhanced controls including direct access capability, favorite's source selection, zone grouping, alarm clock setting, and Keypad lockout.

***Note**: The Matrix Pushbutton (DAS-KP series) and LCD Keypads (DAS-KP-LCD series) are also supported by Tango Controllers.*

SWT Connectors

SWT cabling follows a specific pinout configuration that is labelled on the Tango Controller, Metreau keypads, and other Matrix devices, as shown in FIG. 4.



L = Left audio channel (+)
D = Data / Power (+)
G = Ground (-) - also provides return for L/R Audio
R = Right audio channel (+)

FIG. 4 SWT pinout configuration

Connecting SWT Keypads to the Tango Controller

Metreau keypads connect to the 4-pin connectors labelled *Zone 1, 2, 3 etc.* on the rear panel (FIG. 5):

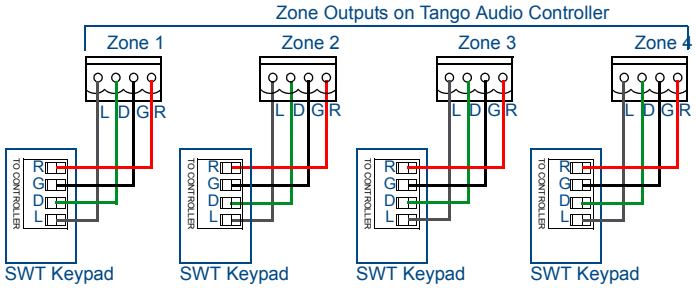


FIG. 5 Connecting Zone Outputs

Connecting SWT Speakers to SWT Keypads

Connect SWT speakers to the 4-pin connector labelled *TO SPEAKERS* on the rear of the SWY keypads (FIG. 6).

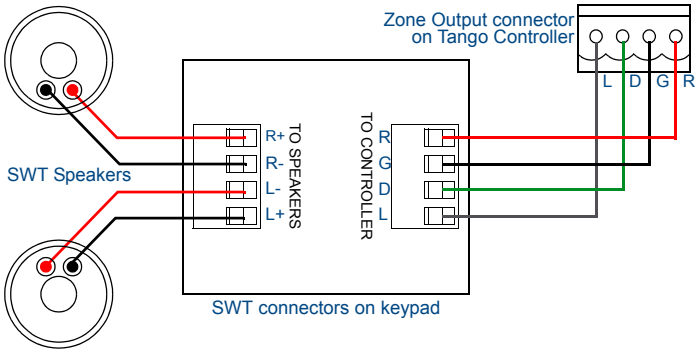


FIG. 6 Connecting SWT keypads and SWT speakers

Connecting Paging Inputs/Outputs

Paging Inputs are for Phone Systems or Communications Boxes. If the paging override is used, connect the output of the phone system or communication box to the Paging Input connector on the Tango controller. (FIG. 7):

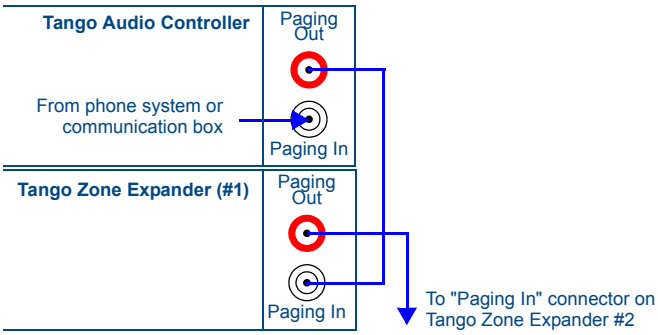


FIG. 7 Connecting Paging Input/Outputs

Additional Documentation

Additional documentation for Distributed Audio products is available online at www.amx.com:

- For details on Metreau Keypads, refer to the *Metreau Keypads Operation/Reference Guide and Installation Guides*.
- For details on Tango Zone Expanders, refer to the *Tango Zone Expanders Operation/Reference Guide and Installation Guides*.
- For details on Tango Amplifiers, refer to the *Tango Amplifiers Installation Guide*.
- For details on MIO R-1 AUDIO remote controllers, refer to the *MIO R-1 AUDIO Installation Guide*.

3000 RESEARCH DRIVE, RICHARDSON, TX 75082 • 800.222.0193 • fax 469.624.7153 • technical support 800.932.6993 • www.amx.com